

## Abstract

A power-up detection apparatus comprises a voltage divider, a potential detector and a buffer. The voltage  
5 divider divides an inputted power voltage in a predetermined ratio. The potential detector compares a predetermined potential with a potential outputted from said voltage divider, and outputs the comparison result. The buffer changes the level of said comparison result when  
10 said comparison result outputted from said potential detector is maintained at a predetermined potential for a predetermined period. As a result, a semiconductor device can be stably initialized because a power-up signal is generated only when an externally inputted power voltage is  
15 maintained at a current state over a predetermined period although the state of the external power voltage is toggled by noise.